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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/804,921	03/19/2004	Ross Thomas Kaufman	KCC 4995 (K-C 20,357A)	8211

321 7590 04/13/2006

SENNIGER POWERS
ONE METROPOLITAN SQUARE
16TH FLOOR
ST LOUIS, MO 63102

EXAMINER	
HAND, MELANIE JO	
ART UNIT	**PAPER NUMBER**
3761	

DATE MAILED: 04/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/804,921	KAUFMAN ET AL.	
	Examiner	Art Unit	
	Melanie J. Hand	3761	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-57 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-57 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 19 March 2004 is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date various (3).
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statements

The information disclosure statement (IDS) submitted on June 7, 2004, June 25, 2005 and January 9, 2006 were filed after the mailing date of the Application on March 19, 2004. The submissions are in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statements are being considered by the examiner.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hale et al (U.S. Patent Application Publication No. 2003/0039851) in view of Chung et al (EP 1,106,640 A2), and further in view of Strand et al (U.S. Patent Application Publication No. 2004/0127609).

With respect to **Claims 1,7,8,11,12,14,15,19,20,53,54:** Hale teaches a multilayer film for use in an absorbent article comprising a stretched multilayer film comprising a thermoplastic layer bonded to a layer comprised of calcium carbonate filler particles and a biodegradable copolyester. The copolyester film is further comprised of 25-70 mol% terephthalic acid (aromatic dicarboxylic acid, hereafter "aromatic DCA"), 30-75 mol% adipic acid (aliphatic dicarxboxylic acid, hereafter "aliphatic DCA") and 100 mol% butanediol (hereafter "dihydric OH"), the mol% based on 100 mol% diacid and 100 mol% diol component. Therefore, the actual total mol% based on the mixed composition are: 12-35 mol% terephthalic acid, 15-37% adipic acid and 45-50% butanediol.

Hale does not teach any particular component of a diaper that the film is used for, however since it is a stretchable copolyester film that is biodegradable, it would be obvious to one of ordinary skill in the art that its best intended use is as an outer cover or backsheet material. Hale also does not teach a weight average molecular weight (hereafter, "Mw") or number average molecular weight (hereafter, "Mn") for the copolyester film. Chung teaches a substantially identical copolyester film with identical breakdown by mol % to the film taught by Hale and having an Mw value of 100,000-600,000 amu, or Daltons, and an Mn value of 30,000-70,000. ('640, ¶¶ 0014-0016) Since Chung teaches a substantially identical film, Examiner asserts that these molecular weights, Mw and Mn, are inherent properties of the film taught by Hale.

Neither Hale nor Chung teaches a glass transition temperature for such a copolyester film. Strand teaches a flame retardant copolyester comprising 0-20 mol% diacid, that diacid being a mixture of an aromatic DCA and adipic acid, and 10-100 mol% 1,4-butanediol. Strand teaches that the glass transition temperature Tg of the copolyester film is between –45 and 40 degrees C. ('609, ¶¶ 0027-0029) Since Strand teaches a film substantially identical to the film

taught by Hale and Chung, Examiner asserts that the glass transition temperature range taught by Strand is an inherent property of the film taught by Hale.

With respect to **Claims 2-6,55-57:** Hale teaches that the calcium carbonate particles are present in an amount between 20-80 wt% of the film. ('851, ¶0080) Calcium carbonate particles are by nature nonporous.

With respect to **Claims 9,10:** Terephthalic acid is a substituted aromatic DCA.

With respect to **Claim 13:** 1,4-butanediol is a straight chain dihydric alcohol.

With respect to **Claims 16-18:** Hale teaches trimellitic acid as the branching agent. ('851, ¶0057), which has three or more carboxylic acid functions.

With respect to **Claims 21,22:** Hale teaches that the film is fabricated at a thickness of between 75-125 microns. ('851, ¶0089)

With respect to **Claims 23,24:** Hale teaches a laminate of the copolyester film and a second layer comprised of a thermoplastic nonwoven polyolefin film. ('851, ¶0077) With respect to Claim 24, Hale does not explicitly teach a spunbond nonwoven, however substituting a spunbond would yield an identical product to that explicitly taught by Hale. Claim 24 thus is unpatentable over the prior art of Hale and Chung and Strand as it contains product-by-process language. See *In re Marosi, 710 F.2d 799, 218 USPQ 289 (Fed. Cir. 1983) and In re Thorpe, 777 F.2d 695, 227 USPQ 964 (Fed. Cir. 1985). See also MPEP § 2113.*

With respect to **Claim 25:** Hale does not teach a basis weight for the film, however Examiner asserts that a basis weight of 30 gsm is an inherent property of both the film taught by Hale and the claimed invention, as Hale teaches a substantially identical film to that of the claimed invention.

With respect to **Claims 26-28:** Hale teaches bonding the copolyester laminate to a substrate (e.g. the thermoplastic layer) using thermal bonding or adhesives. ('851, ¶0084) With respect to Claim 28, Hale does not teach ultrasonic bonding however it is an alternative method for bonding the layers. In the instant case substitution of equivalent methods requires no express motivation, as long as the prior art recognizes equivalency, *In re Fount* 213 USPQ 532 (CCPA 1982); *In re Siebentritt* 152 USPQ 618 (CCPA 1967); *Graver Tank & Mfg. Co. Inc. v. Linde Air Products Co.* 85 USPQ 328 (USSC 1950).

With respect to **Claims 29-31:** Hale teaches any technique known in the art for producing the multilaminate of the claimed invention, which includes both bonding and carding and blown film processes, as well as a process for forming spunbond lace nonwovens. ('851, ¶0084)

With respect to **Claim 32:** Hale does not teach a polylactic acid based substrate for the second layer/substrate, however it is an equivalent material to a thermoplastic nonwoven and thus can be substituted with a reasonable expectation of success. In the instant case substitution of equivalent methods requires no express motivation, as long as the prior art recognizes equivalency, *In re Fount* 213 USPQ 532 (CCPA 1982); *In re Siebentritt* 152 USPQ 618 (CCPA 1967); *Graver Tank & Mfg. Co. Inc. v. Linde Air Products Co.* 85 USPQ 328 (USSC 1950).

With respect to **Claims 33-36:** Hale does not teach a hydrostatic pressure resistance of at least 60 millibar, at least 80 millibar, at least 120 millibar or at least 180 millibar for the copolyester film. Examiner asserts that hydrostatic pressure is an inherent property of the film of the claimed invention and thus claims 33-36 are unpatentable over Hale as Hale teaches a substantially identical film and thus would possess these hydrostatic pressure resistance values.

With respect to **Claims 37-40:** hale teaches that the copolyester film has an MVTR rate of between 500-10,000 g-mL/m^2-day. ('851, ¶0036) With respect to claims 39 and 40, hale does not teach an MVTR that is at least 10,000 g-mL/m^2-day or at least 25,000 g-mL/m^2-day, however applicant has not assigned any criticality to these values. Therefore Examiner asserts that these values are mere optimizations of the MVTR rate property and thus unpatentable over the prior art of Hale and Chung and Strand. It has been held that where general conditions of claim are disclosed in prior art, it is not inventive to discover optimum or workable ranges by routine experimentation. See *In re Aller, Lacey and Hall (105 USPQ 233, CCPA, 1955)*.

With respect to **Claims 41-43:** Hale does not teach a modulus of elasticity of between 50-250 MPa for the copolyester film. Examiner asserts that this range of values for modulus of elasticity is an inherent property of the film of the claimed invention and thus claims 41-43 are unpatentable over Hale as Hale teaches a substantially identical film and thus would possess a modulus of elasticity within the ranges set forth in all of claims 41-44.

With respect to **Claims 44-49:** Hale does not teach an elongation to break for the copolyester film. However, Chung teaches an elongation to break of 200-800% for samples of a

substantially identical film. Examiner asserts therefore that an elongation to break of 200-800% is an inherent property of the copolyester film of the claimed invention and claims 44-49 are unpatentable over the prior art of Hale and Chung.

With respect to **Claims 50-52:** Hale does not teach a break stress of from about 15 Mpa to about 50 Mpa. Chung teaches a tensile strength of between 335-420 kg/cm^2, or 33-42 Mpa. Since Chung teaches a substantially identical film to that of Hale, Examiner asserts that the value is an inherent property of both the film taught by Hale and the film of the claimed invention and thus claims 50-52 are unpatentable over the prior art of Hale and Chung.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melanie J. Hand whose telephone number is 571-272-6464. The examiner can normally be reached on Mon-Thurs 8:00-5:30, alternate Fridays 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tatyana Zalukaeva can be reached on 571-272-1115. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Melanie J Hand

Examiner
Art Unit 3761

MJH

TATYANA ZALUKAEVA
PRIMARY EXAMINER